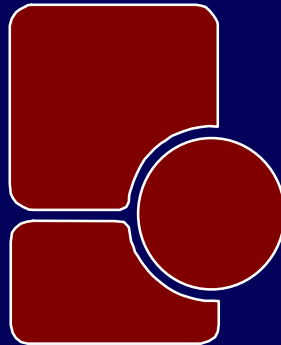


**Joint Legislative Audit and Review Commission
of the Virginia General Assembly**



**Review of VDOT's Administration of the
Interstate Asset Management Contract**

**JLARC Staff Briefing
December 19, 2000**

JLARC Staff for this Study

2

Glen S. Tittermary, Division Chief

Craig Burns, Project Leader

Gerald Craver

Presentation Outline

3



Introduction

- ☐ The Interstate Asset Management Contract
- ☐ Evaluation of Contractor Performance
- ☐ Evaluation of Cost Effectiveness

Study Mandate

4

- In July 1998, the Commission directed staff to complete a review of VDOT's administration of the contract for providing maintenance on portions of the interstate system
- An interim report found that:
 - VDOT had not fully implemented a system to evaluate the contractor's performance
 - No documented analysis of cost effectiveness had been completed to support VDOT's projections of cost savings

Study Issues

5

- Can VDOT adequately evaluate the contractor's performance in maintaining the interstate highways in compliance with contractual requirements?
- Can VDOT determine whether the interstate asset management contract is cost effective?

Study Activities

6

- **Structured interviews with VDOT and contractor staff**
- **Site visits to two of the contractor's field offices**
- **Analysis of VDOT's evaluations of the contractor's maintenance performance**
- **Observation of maintenance work on the interstate**
- **Document reviews**

Summary of Findings

7

- Since the interim report, VDOT has made significant progress in evaluating performance and measuring cost effectiveness of the contract
- VDOT has implemented an annual process for evaluating the contractor's performance and uses field staff to monitor the contractor's work on a continuing basis
- Evaluation of contractor performance could be more useful if conducted quarterly, rather than annually, and other enhancements are needed

Summary of Findings (cont.)

8

- While VDOT has some useful information on cost effectiveness from a study by Virginia Tech, it needs to also complete its comparison of contractor costs and the actual costs for VDOT maintenance

Presentation Outline

9

- ☐ Introduction
- ☒ **The Interstate Asset Management Contract**
- ☐ Evaluation of Contractor Performance
- ☐ Evaluation of Cost Effectiveness

Contract Procurement

10

- VMS, Inc. submitted unsolicited proposal for maintenance of the entire interstate system in October 1995 under provisions of the PPTA
- Competitive proposals were solicited from VMS and other firms by VDOT as required by the PPTA
- Subsequent negotiation between VDOT and VMS modified proposal to include only portions of I-95, I-81, I-77, and I-381
- Contract was signed December 1996, with the first phase of implementation on July 1, 1997

Contract Is for Asset Management

11

■ Scope of the contract:

- Total asset management (maintain to established standards -- not according to quantities of materials or work)
- VMS functions as VDOT's asset manager, with subcontracts for various maintenance activities -- VMS does a minimal amount of work directly
- Five and one-half years
- Implementation phased in over two years

Phased Implementation of Contract

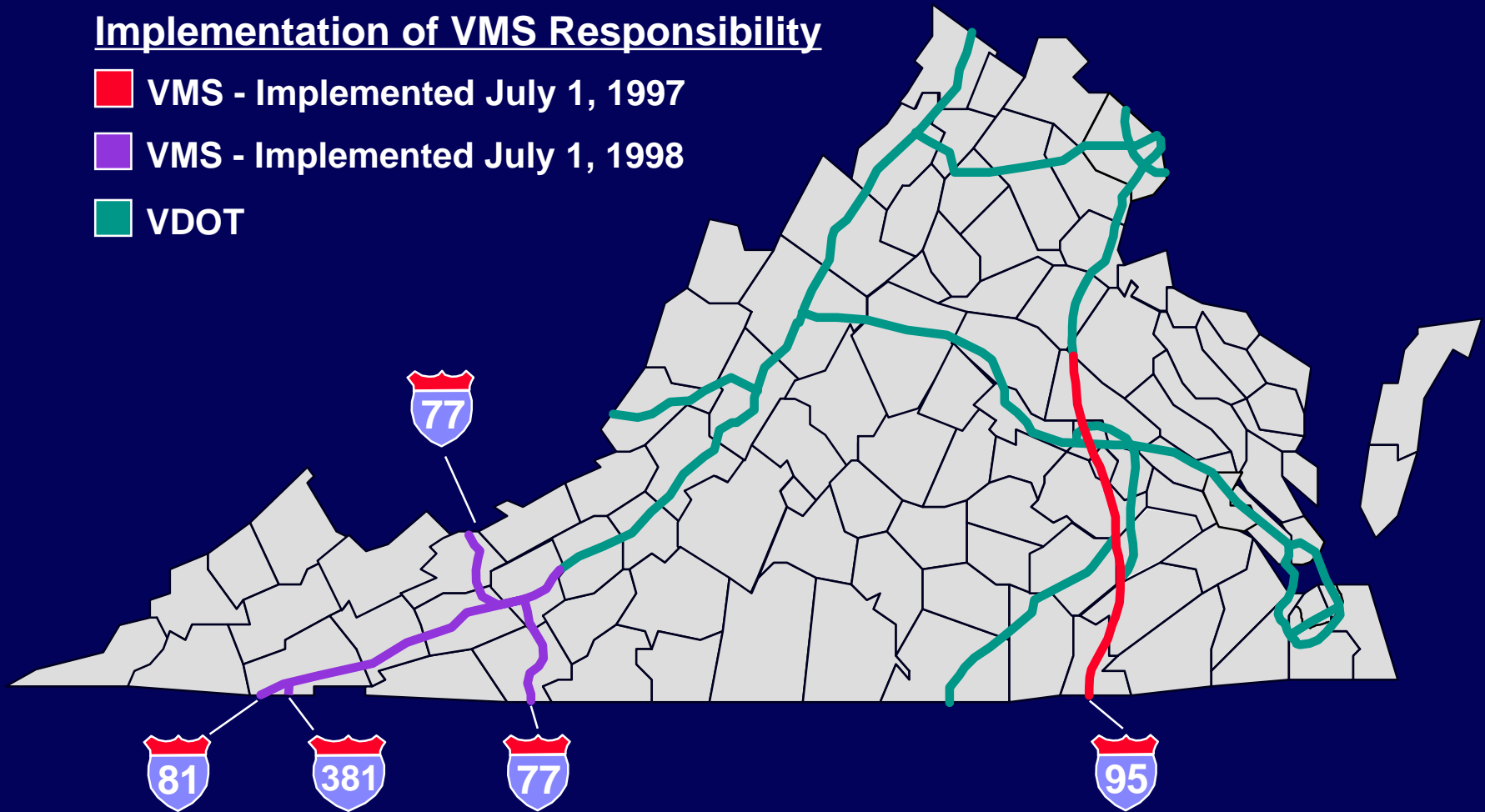
12

Implementation of VMS Responsibility

■ VMS - Implemented July 1, 1997

■ VMS - Implemented July 1, 1998

■ VDOT



Examples of Interstate Assets Covered Under the Contract

13

■ Pavement

- Paved asphalt lanes
- Paved concrete lanes
- Paved shoulders

■ Roadside

- Grass
- Litter
- Fencing

■ Bridges

- Deck and joints
- Substructures
- Retaining walls

■ Drainage

- Box culverts
- Pipes
- Curb and gutter
- Paved ditches

■ Traffic

- Signals
- Signs
- Guardrail
- Pavement markings
- Pavement messages

Contract Payments

14

- Interstate asset management contract is a fixed-price contract
- Payments total \$131.6 million for the life of the contract, paid in annual amounts
- Contractor's return on equity is limited to 125 percent of return on equity for corporations with assets between \$1 million and \$5 million as set out in the Almanac of Business and Industrial Ratios

Contract Payments (cont.)

15

<u>Fiscal Year</u>	<u>Contract Payment</u>
1997	\$ 4.9 million
1998	\$ 11.3 million
1999	\$ 31.0 million
2000	\$ 28.6 million
2001	\$ 28.0 million
2002	\$ 27.8 million
Total	<u>\$131.6 million</u>

Contract Is a Pilot Project

16

- **VDOT implemented interstate asset management contract as a pilot project:**
 - Recognizes potential of approach which is untested
 - Provides VDOT opportunity to test:
 - (1) quality of service
 - (2) cost effectiveness
- **VDOT must complete its evaluation of the pilot by November 2001 to give contractor notice of renewal**

Presentation Outline

17

- ☐ Introduction
- ☐ The Interstate Asset Management Contract
- ☒ Evaluation of Contractor Performance
- ☐ Evaluation of Cost Effectiveness

VDOT Process to Evaluate Performance

18

- VDOT has established a basic process for evaluating the contractor's performance:
 - Annual performance review by an independent contractor
 - Monitoring of contractor work by five field coordinators
 - Review of the contractor's budgets, workplans, monthly reports, and other documentation
 - Public comments and complaints

Annual Evaluation of Performance

19

- In accordance with the current contract, VDOT completes an annual evaluation of contractor performance
- Evaluation is based on a sample of highway segments, for which all assets are evaluated by an independent contractor
- Assets in 37 categories are measured against established performance criteria and compared to a target percentage of compliance

Contractor Had Concerns with FY 1998 and FY 1999 Evaluations

20

- Contractor raised concerns about the evaluations for FY 1998 and FY 1999:
 - VDOT used a pre-existing evaluation instrument that was not modified to reflect the specific requirements of the contract
 - Baseline used by VDOT was flawed because assets maintained by contractor were not in the condition VDOT represented prior to contract award -- contractor had to improve assets before they could be maintained to target levels
- VDOT and contractor have worked to modify the evaluation to more fairly represent the contractor's performance

Periodic Evaluations Could Be More Effective

21

- Annual evaluation may not capture seasonal and other variations in performance
- Contractor evaluates own performance three times a year to account for seasonal variations in work
- VDOT evaluation could be more effective if performed periodically during the year, capturing changes in performance over time
- VDOT and contractor could jointly administer independent evaluations to reduce costs

Monitoring by VDOT Field Coordinators

22

- Monitoring of contractor work on a daily basis is performed by five VDOT field coordinators
- Each field coordinator monitors 50 miles of interstate maintained by the contractor
- Coordinators prepare weekly reports on the work they have observed

Performance Monitoring Could Be Improved

23

- Overall, monitoring by field coordinators appears to provide an appropriate level of oversight of the contractor's performance on a routine basis
- VDOT has not established adequate guidelines for the weekly reports completed by field coordinators
- Lack of comprehensive guidelines contributes to inconsistencies in the content of reports and scope of monitoring performed

Recommendations

24

- **VDOT should consider using quarterly evaluations of contractor performance for future asset management contracts**
- **VDOT should establish specific requirements for the weekly reports completed by the field coordinators**

Presentation Outline

25

- ☐ Introduction
- ☐ The Interstate Asset Management Contract
- ☐ Evaluation of Contractor Performance
- ☒ Evaluation of Cost Effectiveness

Cost Effectiveness

26

- An assessment of the cost effectiveness of the asset management contract is important because VDOT expects the contract to provide better service at lower cost than normal VDOT maintenance
- For asset management contracts, cost effectiveness can be evaluated by comparing the amounts paid to the contractor with the actual costs incurred by VDOT for similar maintenance on the interstate highways

Prior Evaluations of Cost Effectiveness Are of Limited Usefulness

27

- **VDOT projected \$23 million in savings at the time the contract was approved**
 - Based on projections and forecasts, not actual VDOT costs
 - Not adequately documented
- **Contractor has proposed a statewide comparison of VDOT budget for maintenance with the contractor's costs on a per-lane-mile basis**
 - Relies on budgeted amounts, not actual costs
 - Based on several assumptions that are not supported by data or analysis

Current VDOT Approach

28

- In the summer of 2000, VDOT implemented a process to evaluate cost effectiveness:
 - Study by Virginia Tech, which focuses on bid costs
 - Comparison of the contractor's costs with maintenance cost data from VDOT's financial systems
- Virginia Tech study covers a single portion of costs, but does provide useful information
- VDOT analysis may be more useful because it uses actual costs and controls for many of the erroneous assumptions included in earlier estimates of cost effectiveness

Recommendations

29

- **Given the time requirements for renewal of the asset management contract, VDOT needs to complete its analysis of cost effectiveness by June 2001**
- **Expansion of asset management could have significant impacts on the VDOT maintenance budget and programs, so the department should share the findings of its analysis with the transportation committees of the General Assembly**